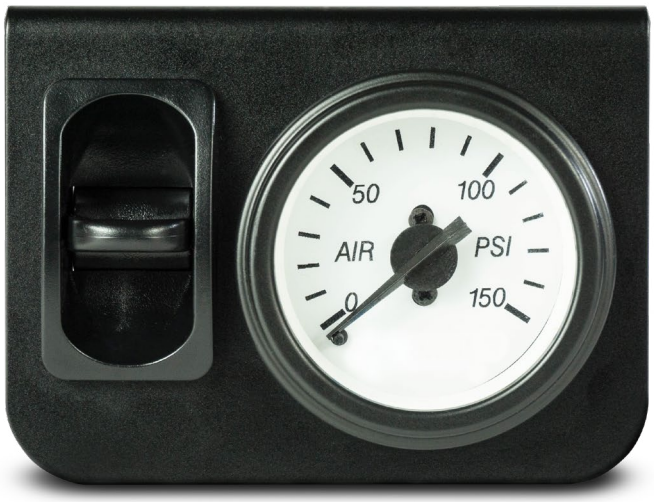
# Installation Manual




## BASIC

# IN-CAB CONTROL KIT

*(for vehicles with a preexisting air system)*

**10133** **SIMULTANEOUS ACTIVATION**
Paddle Valve w/ Mechanical Gauge

*Use this kit in conjunction with air tank kits and air compressor kits to build your own customizable onboard air system.*

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***Thank you & congratulations on the purchase of a Basic In-Cab Control Kit with simultaneous air spring activation via a Mechanical Paddle Valve switch.***

- This Basic Kit is for vehicles with an existing onboard air system. Premium kits are available for those without a pre-existing air system on their vehicle.

  ***PLEASE NOTE: The existing vehicle air system must be capable of 100 PSI.***

- This kit is designed to fill and exhaust both air springs to the same pressure simultaneously. *Air Spring Kit sold separately.*

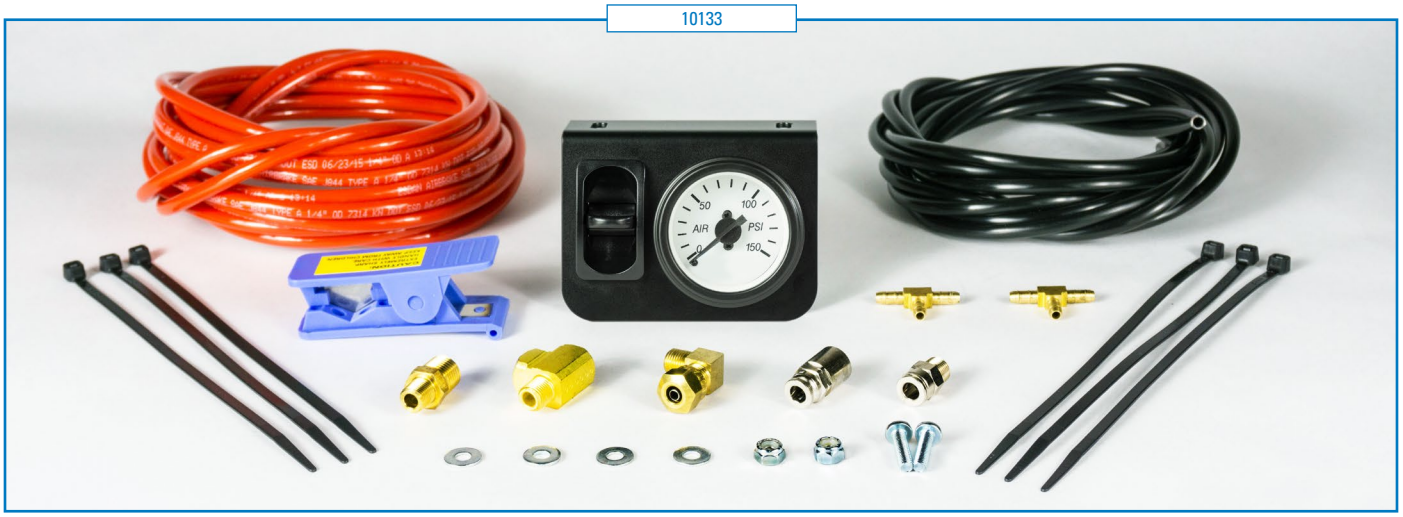
  **IMPORTANT**
  This kit is not recommended for vehicles carrying slide in campers or other loads which the load is above the cab. Air spring inflation kits that simultaneously fill both air springs through one supply / discharge line do not prevent air transfer from one air spring to the other when cornering.

  *If this is a concern to the customer, contact Customer Service at 800.663.0096 for an* ***Independent Air Spring Inflation Kit*** *option.*

## BEFORE STARTING THE INSTALLATION:

1. Read through this manual and ensure you can complete the installation once started.
2. Ensure the kit you recieved contains all the items shown in the kit layout photo below.
3. It is recommended to use a good quality anti-seize on all fasteners. This will reduce the chance of corrosion on the fasteners and will help facilitate removal, if required at a later date.

   ***PLEASE NOTE:***
   ***This kit contains push-to-connect fittings****, using scissors or wire cutters to cut the nylon airline will distort the line and cause the connection to leak. THE AIRLINE MUST BE CUT OFF SQUARELY WITH THE NYLON HOSE CUTTER PROVIDED IN THIS KIT OR A SHARP UTILITY KNIFE.*



**1** Choose a location to mount the gauge and switch panel. It should be in reach and in clear view to the driver.

Using the bracket as a template, mark and drill 2 - 3/16" holes to secure the bracket.

Do not install the bracket until the electrical and airlines have been installed.

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## 2 INSTALL THE AIR SPRING ASSEMBLIES *(if not previously installed).*

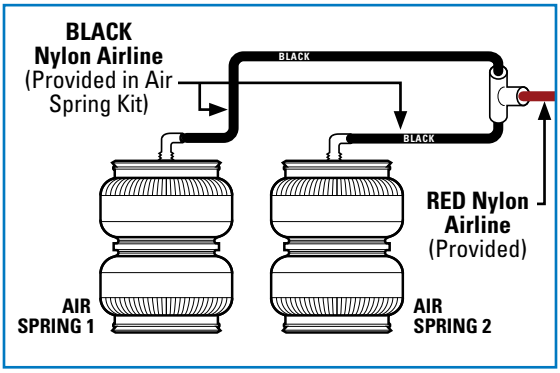
Follow the installation instructions provided in your air spring kit.

Connect both air spring supply lines together using the TEE fitting provided.

Connect the red nylon airline provided to the TEE fitting.

Route the red nylon airline to the control panel mounting location.

Secure the airline with the tie-straps provided.



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**3** Provided is a 1/8" NPT push to connect fitting to be installed in the top of the air tank. Using the BLACK nylon airline provided, connect one end to the fitting installed into the air tank. Route the other end to the air spring gauge panel.

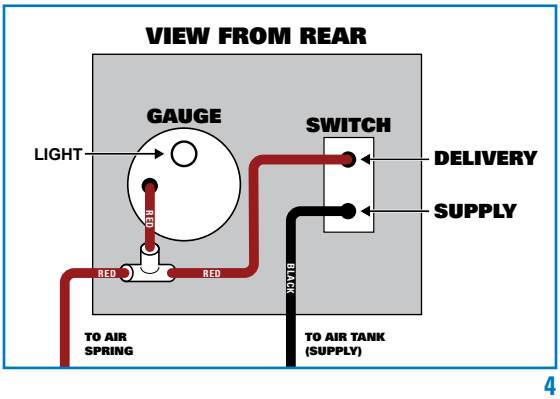
Secure the airline with the tie-straps provided.


3

**4** Connect the BLACK airline originating the air tank to the port on the paddle switch marked "SUP" (supply air).

Using the barbed TEE provided, connect the red nylon airline to the port at the rear of the air pressure gauge and the port on the paddle switch marked "DEL" (delivery air).

***PLEASE NOTE: It is recommended to use a wrench on the flat spot of the threaded ports on the backside of the mechanical gauge, when installing lines. Failure to do so may result in damaged ports***



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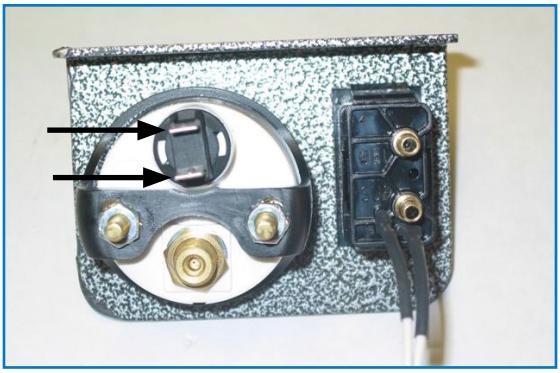
**5** At the rear of the air pressure gauge, locate the two spade terminals (shown by the arrows in Figure 5). These are for the gauge lighting.

Using the red 'T' tap provided, connect to the dashboard illumination circuit. Crimp the insulated male blade terminal to the red fused wire provided. Connect to the 'T' tap. Using the BLACK wire and terminals provided, connect the other terminal to a good chassis ground.

***NOTE: If you do not wish to have the ability to dim the gauge light with the vehicles dimmer switch, then attach the 'T' tap and inline fuse to a 12 volt + ignition power source***



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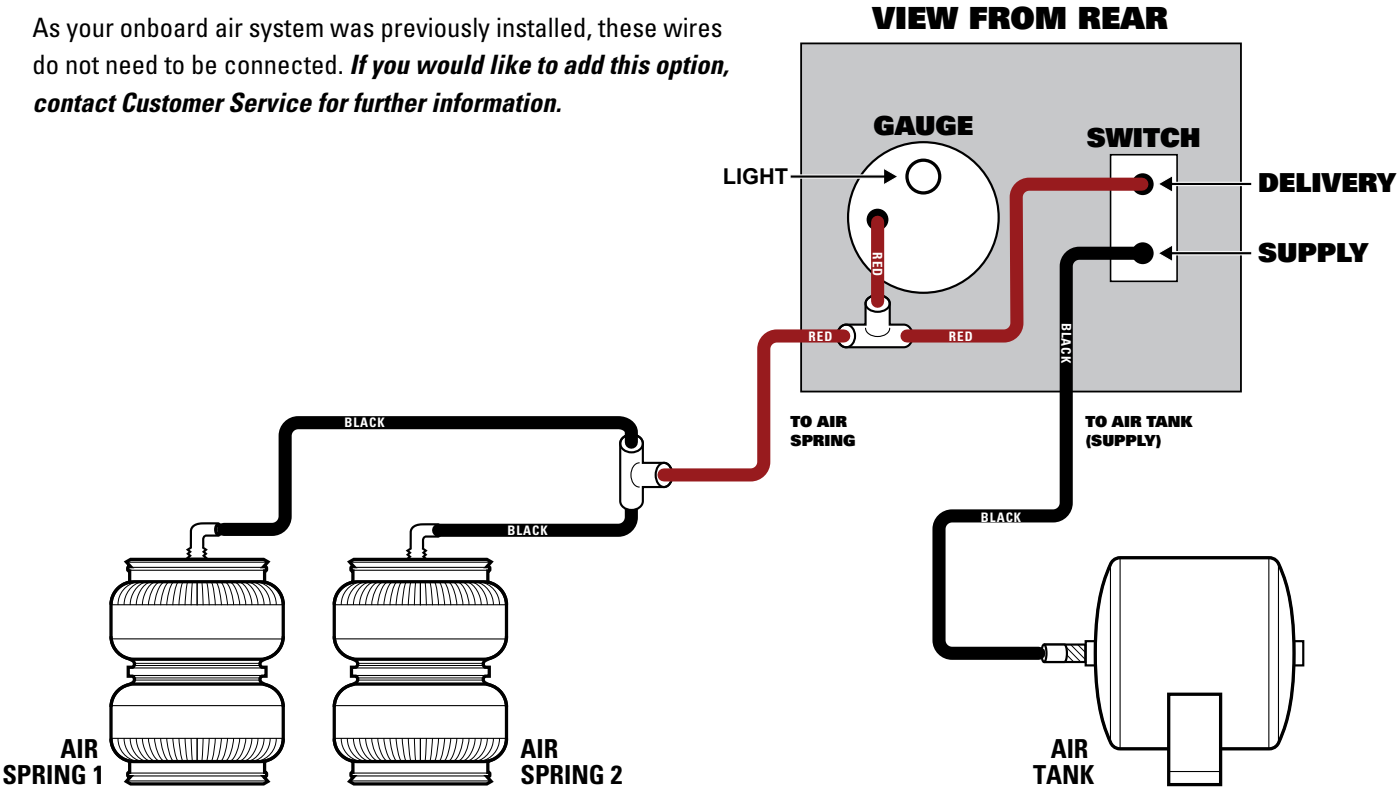
**6** At the rear of the paddle switch are two white wires. These make a connection when the paddle switch is moved to the upper (inflate) position. This is an optional circuit to enable the air compressor when inflating the air springs.

As your onboard air system was previously installed, these wires do not need to be connected. ***If you would like to add this option, contact Customer Service for further information.***



## 7 TESTING THE SYSTEM

Turn the ignition ON, move the paddle switch to the UP position. The needle of the gauge should show air pressure being delivered to the air springs raising the vehicle. Then move the paddle switch to the lower position. The needle of the gauge should show the air pressure dropping and lowering the vehicle. Check the system for air leaks, fill the air springs to a predetermined value, then periodically check the gauge for any air pressure loss. Repeat as necessary.

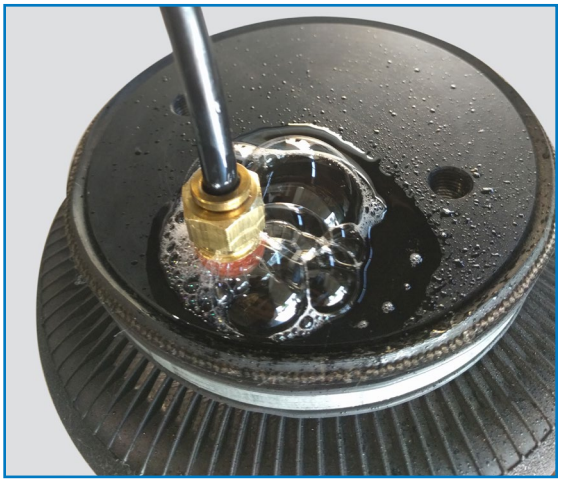
## 8 CHECK SYSTEM FOR LEAKS

Inflate both air springs to 90 psi (60 psi for in-coil bags) and then use a mixture of dish soap and water on all air line connections to detect any air leaks. Large, expanding bubbles indicate a leak (as shown in Figure 8).

**Repair as necessary and retest.**

Inflate air springs to a predetermined value and on following day recheck pressure. If one or both of air springs have lost pressure, an air leak is present.

***Leak must be repaired, and then retested until no leaks exist.***



**Air Spring & NPT Air Fitting may differ between kits* 8

## AFTER COMPLETING THE INSTALLATION

- The air spring must have clearance between itself and the surrounding components to prevent any contact when spring is inflated or compressed. Trimming off excess bolt length may also be required to ensure no contact with the spring or other suspension components can be made once installed.
- If removed, re-install the wheels and torque fasteners to the manufacturer's specifications. Re-torque all fasteners after the first 500 miles of driving.

## OPERATING YOUR VEHICLE WITH AIR SUSPENSION

Air springs have minimum and maximum recommended pressure requirements:

| PART # | SPRING STYLE | SPRING TYPE | MIN PSI | MAX PSI |
|---|---|---|---|---|
| HP10189 | In-Coil | **STANDARD DUTY** | 5 PSI | 70 PSI |
| HP10560 | | **STANDARD DUTY** | | |
| HP10001 | Sleeve Style | **STANDARD DUTY** | 10 PSI | 100 PSI |
| HP10173 | | **STANDARD DUTY** | | |
| HP10199 | | **STANDARD DUTY** | | |
| HP10083 | Single Convoluted | **HEAVY DUTY** | 5 PSI | 100 PSI |
| HP10083J | | **HEAVY DUTY** with JOUNCE BUMPER | 0 PSI* / 5 PSI | 100 PSI |
| HP10000 | Double Convoluted | **HEAVY DUTY** | 5 PSI | 100 PSI |
| HP10000J | | **HEAVY DUTY** with JOUNCE BUMPER | 0 PSI* / 5 PSI | 100 PSI |
| HP10068 | Large Double Convoluted | **HEAVY DUTY** | 5 PSI | 100 PSI |
| HP10438 | Double Convoluted | **EXTREME DUTY** | 5 PSI | 100 PSI |
| HP10438J | | **EXTREME DUTY** with JOUNCE BUMPER | 0 PSI* / 5 PSI | 100 PSI |

** Springs with a jounce bumper can be run at zero PSI when vehicle is unloaded only*

For safe and proper operation, never operate the vehicle over the maximum listed PSI in the air springs. Staying under the pressure limit will ensure maximum air spring life. **Failure in doing so may result in damage to your vehicle and/or a void warranty.**

***It is recommended to check the air pressure in your air springs daily for first couple of days to ensure a leak has not developed.***

Air springs are designed to maintain the vehicle's stock ride height with a load. Do not use the air springs as a means to lift vehicle with no load. This will result in a harsh ride.

## SERVICING YOUR VEHICLE WITH AIR SUSPENSION

When lifting the vehicle with a floor jack or hoist on the frame, never allow the air spring to limit the travel of the axle. Try to always jack the vehicle on the axle. Suspending the axle with the air spring limiting the axle travel will damage the air spring and void the air spring warranty.

## WARRANTY

***See additional warranty included with this kit for details.***